

**UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF NEW YORK**

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In re: Methyl Tertiary Butyl Ether ("MTBE")  
Products Liability Litigation

**MDL No. 1358  
Master File C.A. No.  
1:00-1898 (SAS)**

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**This document relates to the following case:**  
Orange County Water District v. Unocal, et al.,  
Case No. 04 Civ. 4968

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**PLAINTIFF ORANGE COUNTY WATER DISTRICTS' LOCAL RULE 56.1  
STATEMENT OF DISPUTED AND MATERIAL FACTS IN OPPOSITION TO  
DEFENDANTS' MOTION FOR SUMMARY JUDGMENT DUE TO LACK OF INJURY  
AND DAMAGES AT CERTAIN TRIAL SITES**

<b>Defendants' Material Facts</b>	<b>Plaintiffs' Response</b>
<p>1. Four trial sites designated by Plaintiff Orange County Water District ("OCWD") are at issue in this motion: (1) the former Beacon Bay Auto Wash at 10035 Ellis Avenue, Fountain Valley ("Beacon Bay FV"); (2) Unocal #5399, 9525 Warner Avenue, Huntington Beach ("Unocal #5399"); (3) Unocal #5123, 14972 Springdale Street, Huntington Beach ("Unocal #5123"); and (4) Thrifty 368, 6311 Westminster Boulevard, Westminster ("Thrifty 368"). OCWD's testifying hydrogeology expert Anthony Brown states that, with regard to the "Focus Sites" at issue, it "will need to implement additional investigation and remediation activities . . . to mitigate the ongoing threat to the drinking water resources managed by the OCWD."</p> <p>Declaration of Peter C. Condrón ("Condrón Decl."), Exh. 1 (Expert Report of Anthony Brown, at 2).</p>	<p>1. Undisputed as to testimony, otherwise Disputed.</p> <p>The District designated Focus Plumes for trial in this matter, and each station at issue in this motion is associated with Focus Plume that contains other gasoline stations. (Declaration of David Bolin (July 21, 2014) ¶¶ 2-4 and Ex. 1 attached thereto (Bolin Decl.)) The District associated stations with "plumes" because "they are in proximity to one another and in proximity to the wells that are listed" and "because contamination, MTBE and TBA contamination . . . identified at these sites are believed to have commingled or could commingle . . . and consequently referred to as the focus plumes." (O'Reilly Decl., Ex. 1, Bolin Depo. (July 30, 2008) at 72:11-73:15.)</p> <p>Beacon Bay is associated with Plume No. 3, Unocal #5399 is associated with Plume No. 1, and Unocal #5123 and Thrifty #368 are associated with Plume No. 9. (Bolin Decl. ¶¶ 2-4.)</p> <p>Mr. Brown confirmed that sufficient MTBE had migrated off-site from each of these four stations that additional remediation actions were warranted. (Condrón Decl. Exh. 2 (Exhibit 36 to the Deposition of Anthony Brown ("Brown Exh. 36")).) Mr. Brown testified that the District would need to spend at least \$80,000 per station to determine the nature and extent of any further remedial actions that may be needed. (O'Reilly Decl., Ex. 2, Expert Report of Anthony Brown and Robert Stollar (May 28, 2011) at Appendices B.6, B.10, B.16, and B.18.)</p> <p>The District has already incurred substantial costs to conduct CPT and other groundwater sampling at plumes associated with these stations, as well as other non-station specific costs. (Bolin Decl. ¶ 7.)</p> <p>Mr. Brown "was asked to determine data gaps at the sites and what work would be necessary</p>

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	<p>to complete investigation and remediation at these sites and determine the costs.” (O'Reilly Decl., Ex. 3, Brown Depo. (Feb. 1, 2012) at 1192:20-1193:2.)</p> <p>Dr. Wheatcraft was retained to prepare a groundwater contaminant transport model of the MTBE released from focus sites. (Declaration of Stephen W. Wheatcraft, Ph.D. in Support of Plaintiff's Opposition to Motion for Summary Judgment (July 21, 2014) ¶¶ 1-3 (Wheatcraft Decl.) Dr. Wheatcraft testified:</p> <p>Q. Are you saying, basically, that your work is showing the potential consequences if action is not taken to remediate to take care of the plumes, and you understood that to be your primary purpose?</p> <p>A. Yes. And, actually, that's exactly correct.</p> <p>(O'Reilly Decl., Ex. 4, Wheatcraft Depo. (Jan. 17, 2012) 249:19-24; 250:10-15 [model “illustrate[s] a significant need for action”].)</p> <p>“A significant amount of MTBE has been released to groundwater within” the District's service area, and “[t]his MTBE, if not remediated, will impact water production wells . . .” (O'Reilly Decl., Ex.5, Expert Report of Stephen W. Wheatcraft, Ph.D. (June 22, 2011) at ¶¶ 2-3, p. 8.) Wheatcraft's model shows that MTBE has impacted or will impact all of the drinking water wells associated with plumes which contain the four focus sites at issue in this motion. (Wheatcraft Decl. ¶ 8.) Specifically, “the MTBE transport model predicts . . . 108 district production wells [will] exceed 5.0 ug/l MTBE [originating from the focus plume stations, including these four stations] after 10 years . . . .” (Id.) Sampling and vulnerability studies conducted by the District confirm that MTBE has been detected in over fifty-six drinking water wells throughout the District's service area since</p>

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	<p>2010. (Bolin Decl. ¶ 6.)</p> <p>Dr. Fogg similarly concluded that “significant MTBE mass [is present] beyond the monitoring well networks . . .” of the stations, and that the only way to prevent this MTBE from reaching public drinking water wells is to clean up the [MTBE] contamination before it gets to supply wells.” (O’Reilly Decl., Ex. 6, Fogg Depo. (Jan. 21, 2012) at 110:9-24.)</p> <p>The District’s principle hydrogeologist confirmed:</p> <p>“Each focus plume (with associated stations) is located within a pumping depression [of a major supply well or wells]. Based on the prevalent downward hydraulic gradient beneath each station, MTBE that has migrated off-site from each station will move downward into the principal aquifer and be carried to the pumping wells that created the pumping depressions.”</p> <p>(Declaration of Roy Herndon in Support of Plaintiff Orange County Water District’s Opposition to Omnibus Motion for Summary Judgment (July 21, 2014) ¶ 3 (“Herndon Decl.”).)</p>
<p>2. Brown provided a lengthy expert report and a rebuttal report in this case, but he also produced a chart at his deposition, which was marked as Exhibit 36.</p> <p>Condron Decl. Exh. 2 (Exhibit 36 to the Deposition of Anthony Brown (“Brown Exh. 36”); Condron Decl. Exh. 3 (Deposition of Anthony Brown (“Brown Dep.”) at 218:15-219:13; 257:24-258:14.)</p>	<p>2. Undisputed.</p>
<p>3. Exhibit 36 summarized Brown’s most up-to-date opinions as to whether a series of 22 propositions are “more likely than not” true for each of the Focus Sites he examined. Exhibit 36 contained the opinions that Brown would offer at trial and, to the extent they differed from those in his expert report, the opinions expressed in Exhibit 36 and his</p>	<p>3. Disputed</p> <p>The detailed analysis, assessment, and basis for opinions set forth in Mr. Brown’s expert report and deposition testimony is not reflected in Exhibit 36. (O’Reilly Decl., Ex. 2, Expert Report of Anthony Brown and Robert Stollar (May 28, 2011) at Appendix</p>

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<p>deposition testimony superseded the opinions in his expert report.</p> <p>Condron Decl. Exh. 3 (Brown Dep. at 668:5-6, 639:19-20).</p>	<p>B.6.)</p> <p>Brown Exh. 36 does not “summarize” Mr. Brown’s opinions. His opinions include his reasoning and analysis. Exhibit 36 simply uses a single symbol to reflect Mr. Brown’s conclusions in 22 different categories. Brown Exh. 36 does not discuss the relationship between the categories or the reasons for the conclusions. (O’Reilly Decl., Ex. 3, Brown Depo. (Dec. 29, 2011) at 30:20-30:24.) Brown Exh. 36 is merely a roadmap or key to the opinions.</p> <p>As demonstrated below, Mr. Brown’s opinions are specific to each station and take into consideration a multitude of station specific factors. Mr. Brown’s opinions are, therefore, not as generic as presented by defendants.</p>
<p>4. For each of the 22 propositions in Exhibit 36, as applied to each Focus Site, Brown indicated “Y” if the proposition was more likely than not true; “N” if the proposition was likely not true; or “P” (for “possible”) “[i]f we could not determine that it was more likely than not . . . .”</p> <p>Condron Decl. Exh. 3 (Brown Dep. at 639:7-10).</p>	<p>4. Disputed</p> <p>The “Yes” and “Possible” symbols in Brown Exh. 36 are not as absolute or conclusive as suggested by defendants. The “Notes” on Brown Exh. 36 clearly indicate that some of the “Y” and “P” symbols are qualified or tentative because of important gaps in the data needed to affirm the opinion. (O’Reilly Decl., Ex. 3, Brown Depo. (Dec. 29, 2011) at 30:20-30:24.) With respect to Unocal #5123, for example, virtually all of Mr. Brown’s “Yes” or “Possible” entries are qualified due to the fact that MTBE has not been analyzed for since 1997.</p>
<p>5. Brown testified that the term “threat” “would be defined as the contamination that has resulted from a release at a particular facility could potentially either impact aquifers that would be used for or potentially used for drinking water supply, and that's reflected in question or opinion 21 on my summary table.” Condron Decl. Exh. 3 (Brown Dep, at 638:2-8). Brown testified that a “threat” would include “contamination [that] could potentially impact [a] water supply well.” Condron Decl. Exh. 3 (Brown</p>	<p>5. Undisputed as to text of testimony, otherwise Disputed.</p> <p>Defendants fail to include important testimony from Mr. Brown indicating the limits of the “threat” analysis that he performed which was preliminary and limited:</p> <p>In evaluating each of the specific service stations, I would obviously look at the historical and current contaminant concentration data, groundwater flow</p>

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<p>Dep. at 638:14-15).</p>	<p>direction, the remediation activities that have occurred at the site. And based upon that and potential data gaps that exist, I would attempt to reach a conclusion that it is more likely than not that the contaminants do pose a threat to water supply wells.</p> <p>(O'Reilly Decl., Ex. 3, Brown Depo (Jan. 2, 2012) at 441:8-442:1.) Mr. Brown further explained that:</p> <p>As I have discussed in response to earlier questions, if we believe that it was more likely than not the contamination posed a threat, then in response to question No. 22, the answer would be "Yes."</p> <p>If we believe that the contamination did not pose a threat, then the answer would be "No."</p> <p>If we could not determine that it was more likely than not that the contamination posed a threat, <u>but also not determine that it was more likely than not that it did not pose a threat, then it was left as a "Possible."</u></p> <p>(O'Reilly Decl., Ex. 3, Brown Depo (Jan. 3, 2012) 638:25-639:11 [emphasis added].)</p> <p>Mr. Brown also testified that the lack of "vertical delineation" of MTBE contamination "at almost every site" was a significant impairment to his ability to formulate opinions concerning threats to deeper aquifers. (O'Reilly Decl., Ex. 3, Brown Depo. (Jan. 25, 12) at 924:12-19.)</p>
<b>Beacon Bay FV</b>	
<p>6. Brown could not testify that it was more likely than not that further on-site or offsite remediation was needed at Beacon Bay FV, or that releases from that station posed a threat to water supply wells or water supply aquifers.</p>	<p>6. Disputed.</p> <p>With respect to the Beacon Bay, FV station, Brown testified that</p> <ul style="list-style-type: none"> <li>• Sufficient MTBE has been released to</li> </ul>

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<p>Condron Decl, Exh. 2 (Brown Exh. 36).</p>	<p>impact groundwater off-site.</p> <ul style="list-style-type: none"> <li>• MTBE contamination has migrated off-site</li> <li>• MTBE contamination has commingled off-site with Thrifty #383 and Arco #1912</li> <li>• Remediation failed to prevent MTBE contamination from migrating off-site</li> <li>• Remediation failed to clean up MTBE contamination that migrated off-site</li> <li>• Additional off-site assessment is required, including assessment of <u>deeper</u> groundwater</li> <li>• It is "possible" that remediation of off-site MTBE contamination will be required, and that this contamination poses a threat to deeper aquifers and wells.</li> </ul> <p>(Condron Decl, Exh. 2 (Brown Exh. 36).)</p> <p>Defense witnesses, including expert Anthony Daus, agree that MTBE contamination at the Beacon Bay, FV site has migrated off-site and commingled with other stations in Plume 3. (O'Reilly Decl., Ex. 7, Luka Depo. (March 27, 2009) at 281:23-282:10; Ex. 8, Daus Depo. (Feb. 2, 2012) at 395:14-396:2, 397:10-17. ) Mr. Daus admitted that he does not know how much MTBE migrated off-site from Beacon Bay, FV or how far it has gone. (Daus Depo. (Feb. 2, 2012) at 395:14-396:2, 397:10-17.)</p>
<p>7. Brown testified at his deposition:</p> <p>Q. Do you have an opinion that the alleged MTBE or TBA from Beacon Bay, Fountain Valley is a threat to any specific drinking water wells in Orange County?</p> <p>***</p> <p>A. I've only been able to conclude that the release at Beacon Bay Auto Wash, Fountain Valley is a possible threat to water supply wells, but I've been able to -unable to conclude that it's more likely than not that the release poses a threat to a water supply.</p> <p>Condron Decl. Exh. 3 (Brown Dep. at 1333:7-16).</p>	<p>7. Undisputed as to text of Mr. Brown's testimony, otherwise Disputed.</p> <p>Mr. Brown explained during his deposition that a "possible" means that he was unable to reach a conclusion and that a "possible" does not mean the station <u>does not</u> pose a threat to deeper aquifers or wells. (O'Reilly Decl., Ex. 3, Brown Depo (Jan. 2, 2012) at 441:8-442:1; Brown Depo (Jan. 3, 2012) 638:25-639:11 [emphasis added].)</p> <p>MTBE was detected in groundwater at Beacon Bay, FV at 4,770 ppb when it was first sampled for in April 1996. (Wheatcraft Decl. ¶ 12.) MTBE was subsequently detected in groundwater as high as 100,000 ppb. (Id.) Groundwater off-site has not been</p>

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	<p>sampled for contamination. (Id.) Where no off-site sampling has occurred, transport modeling is the best method of determining the likely fate of MTBE found in groundwater on-site. (Id.)</p> <p>Dr. Wheatcraft modeled the MTBE released from Beacon Bay, FV. (Wheatcraft Decl. ¶ 4.) The modeling showed that the MTBE released from Beacon Bay, FV has migrated off-site and mixed with MTBE from other stations, and contributed to focus plumes. (Id. ¶ 5.) The modeling showed the MTBE contributed by Beacon Bay, FV will converge with MTBE released by other stations to impact deeper aquifers and drinking water wells. (Id. ¶¶ 6-7.)</p> <p>The District's Chief Hydrogeologist, Roy Herndon, also concluded that this station posed a threat to drinking water resources and wells because the station is located within the "pumping depression" of a major supply well or wells. (Herndon Decl. ¶ 3.)</p>
<p>8. Brown testified that "[w]ith respect to water supply wells, I could only conclude that the release [at Beacon Bay FV] poses a possible threat. I could not conclude that it was more likely than not."</p> <p>Condron Decl, Exh. 3 (Brown Dep, at 1375:17-20)</p>	<p>8. Undisputed as to text of testimony, otherwise Disputed for the same reasons as set forth in Response to Paragraphs 6 and 7 supra.</p>
<p>9. Brown was unable to conclude that any additional off-site remediation was necessary at Beacon Bay FV, or that the site posed a threat to deeper drinking water aquifers:</p> <p>Q. Okay. Question 20, you think it's possible that off-site remediation will be needed at this site, but you don't know whether it's more likely than not. Is that right -- fair?</p> <p>A. That is correct.</p> <p>Q. And looking at your chart again, you</p>	<p>9. Undisputed as to testimony, otherwise Disputed for the same reasons set forth in Response to Paragraphs 3-5 and 6-7 supra.</p> <p>Beacon Bay, FV is part of Plume No. 3 which is associated with District monitoring wells OCWD-M10, OCWD-M11, and OCWD-M45. (Bolin Decl. ¶ 3.) MTBE has been detected in OCWD-M45. (Id.) Dr. Wheatcraft's model also predicts that all of these wells will be impacted by MTBE. (Wheatcraft Decl. ¶ 8.)</p>



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<p>think it's possible that contamination from this site poses a threat to deeper aquifers, but you don't have an opinion as to whether it's more likely than not?</p> <p>A. That is correct.</p> <p>Condron Decl. Exh. 3 (Brown Dep. at 1364:13-1365:17).</p>	
<p>10. Brown concluded that no further on-site remediation was needed at Beacon Bay FV, Condron Decl. Exh. 2 (Brown Exh. 36, Opinion 19):</p> <p>Q. And Question 19, it's your opinion that it's more likely than not that no additional on-site delineation is needed -- excuse me -- no additional on-site remediation of groundwater is needed, correct?</p> <p>A. That is correct.</p> <p>Q. It's your opinion that on-site remediation has effectively controlled the contamination, correct?</p> <p>***</p> <p>A. Correct. Question 14 would indicate that the remediation performed has effectively addressed the on-site groundwater contamination.</p> <p>Condron Decl. Exh. 3 (Brown Dep. at 1359:21-1360:8)</p>	<p>10. Undisputed as to testimony, otherwise Disputed.</p> <p>The fact that no further on-site remediation is needed does not establish that the District has not been harmed by off-site MTBE from Beacon Bay, FV as set forth in Response to Paragraphs 6, 7, and 9 supra.</p> <p>Mr. Brown testified that on-site remediation at Beacon Bay, FV, failed to prevent MTBE contamination from migrating off-site, and failed to clean up MTBE contamination that migrated off-site. Thus, Mr. Brown concluded that additional off-site assessment is required, including assessment of <u>deeper</u> groundwater.</p> <p>(Condron Decl, Exh. 2 (Brown Exh. 36).)</p>
<b>Unocal #5399</b>	
<p>11. Brown testified at his deposition that it was more likely than not that Unocal #5399 did not pose a threat to water supply wells:</p> <p>Q. And you do not think that the alleged MTBE released from Unocal 5399 is a threat to any specific drinking water wells in Orange County, correct?</p> <p>A. If you refer to Exhibit 35 for Unocal station 5399, question 22.</p>	<p>11. Undisputed as to testimony, otherwise Disputed</p> <p>Brown testified that</p> <ul style="list-style-type: none"> <li>• Sufficient MTBE has been released to impact groundwater off-site.</li> <li>• MTBE contamination has migrated off-site</li> <li>• MTBE contamination has possibly commingled with Texaco #121681</li> <li>• Remediation failed to prevent MTBE contamination from migrating off-site</li> </ul>

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<p>Q. I think you meant 36.</p> <p>A. Sorry, yes. Excuse me, 36. Question 22 states, "Releases at the facility pose a threat to water supply wells?" I have concluded that it is more likely than not that they do not pose such a threat.</p> <p>Condron Decl. Exh. 3 (Brown Dep. at 915:7-22).</p>	<ul style="list-style-type: none"> <li>• Remediation failed to clean up MTBE contamination that migrated off-site</li> <li>• Additional off-site assessment is required, including assessment of <u>deeper</u> groundwater</li> <li>• It is "possible" that remediation of off-site MTBE contamination will be required.</li> </ul> <p>Condron Decl, Exh. 2 (Brown Exh. 36).</p> <p>Mr. Brown explained during his deposition that a "possible" means that he was unable to reach a conclusion and that a "possible" does not mean the station <u>does not</u> pose a threat to deeper aquifers. (O'Reilly Decl., Ex. 3, Brown Depo (Jan. 2, 2012) at 441:8-442:1; Brown Depo (Jan. 3, 2012) 638:25-639:11 [emphasis added].)</p> <p>Mr. Brown's ability to form conclusions about off-site contamination at Unocal #5399 was impaired because MTBE had not been sampled for at the site since 1997. (O'Reilly Decl., Ex. 3, Brown Depo. (Jan. 25, 2012) at 919:23-920:13.)</p> <p>MTBE was detected in groundwater at 310 ppb when it was first sampled for in March 1996. (Wheatcraft Decl. ¶ 13.) MTBE was subsequently detected in groundwater as high as 2,000 ppb. (Id.) Groundwater off-site has not been sampled for contamination. (Id.) Where no off-site sampling has occurred, transport modeling is the best method of determining the likely fate of MTBE found in groundwater on-site. (Id.)</p> <p>Dr. Wheatcraft modeled the MTBE released from the Unocal #5399 station. (Wheatcraft Decl. ¶ 4.) The modeling showed that the MTBE released from Unocal #5399 has migrated off-site and mixed with MTBE from other stations, and contributed to focus plumes. (Id. ¶ 5.) More importantly, Wheatcraft's modeling showed the MTBE contributed by Unocal #5399 will converge with MTBE released by other stations to impact deeper aquifers and drinking water</p>

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	<p>wells. (Id. ¶¶ 6-7.)</p> <p>The District's Chief Hydrogeologist, Roy Herndon, also concluded that this station posed a threat to drinking water resources and wells because the station is located within the "pumping depression" of a major supply well or wells. (Herndon Decl. ¶ 3.)</p> <p>Unocal #5399 is part of Plume No. 1, and City of Newport Beach drinking water well MB-TAMD is associated with this plume. (Bolin Decl., ¶ 2.) MTBE was detected twice, in 2005 and 2008, in NB-TAMD. (Bolin Decl., ¶ 2.) Additionally, NB-TAMS, HB-9, NB-DOLD and NB-DOLS drinking water wells are associated with Plume No. 1. (Bolin Decl., ¶ 2.) Dr. Wheatcraft's model also predicts that all of these wells will be impacted by MTBE. (Wheatcraft Decl. ¶ 8.)</p>
<p>12. Brown could not testify that it was more likely than not that an alleged release of MTBE from Unocal #5399 posed any threat to deep aquifers.</p> <p>Condron Decl. Exh. 3 (Brown Dep. at 924:1-5 (Q. "Again, you think it's possible that contamination from Unocal 5399 is a threat to deep aquifers, but you can't say whether or not it's more likely than not that's the case, correct? A. That's correct.")).</p>	<p>12. Disputed for the reasons set forth in Response to Paragraph 11 supra.</p>
<p>13. Brown could not opine that off-site remediation is necessary, and he stated that remedial activities at Unocal #5399 had addressed alleged on-site impacts:</p> <p>Q. Now, you do think that the current remediation has effectively addressed the on-site MTBE contamination, correct? And that's question 14.</p> <p>A. Yes. And, as indicated, the only remediation activities was [sic] an excavation performed at this facility back in late 1994.</p> <p>Q. It's your opinion that no more on-site</p>	<p>12. Disputed for the reasons set forth in Response to Paragraphs 3-5, and 11 supra and as follows:</p> <p>Mr. Brown testified that on-site remedial activities <b>had not addressed or contained</b> MTBE contamination which had migrated off-site. Condron Decl. Exh. 2, Brown Exh. 36. Mr. Brown testified that it is "possible" that off-site remediation is necessary as additional off-site assessment is required, including assessment of <u>deeper</u> groundwater. (Id.)</p>

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<p>remediation is needed at this site, correct?</p> <p>A. That's correct.</p> <p>Q. And in terms of question 20, the off-site remediation, again, it may need it, but you can't say whether it's more likely than not it's needed, correct?</p> <p>A. That's correct.</p> <p>Condron Decl. Exh. 3 (Brown Dep. at 920:19-921:7).</p>	
<b>Unocal #5123</b>	
<p>14. Brown was unable to opine that Unocal #5123 posed any threat to drinking water wells:</p> <p>Q. Mr. Brown, you do not have an opinion that the alleged MTBE from Unocal 5123 is a threat to any specific drinking water wells in Orange County, do you?</p> <p>A. I have only been able to conclude that it poses a possible threat. I have not been able to conclude that that threat is more likely than not.</p> <p>Condron Decl. Exh. 3 (Brown Dep, at 1021:15-23).</p>	<p>14. Undisputed as to testimony, otherwise disputed.</p> <p>Brown testified that</p> <ul style="list-style-type: none"> <li>• Sufficient MTBE has been released to impact groundwater off-site.</li> <li>• MTBE contamination has migrated off-site</li> <li>• MTBE contamination has possibly commingled off-site with Huntington Beach Arco</li> <li>• Remediation failed to prevent MTBE contamination from migrating off-site</li> <li>• Remediation possibly failed to clean up MTBE contamination that migrated off-site</li> <li>• Additional off-site assessment is required, including assessment of <u>deeper</u> groundwater</li> <li>• It is "possible" that remediation of off-site MTBE contamination will be required, and that this contamination poses a threat to deeper aquifers and wells.</li> </ul> <p>Condron Decl, Exh. 2 (Brown Exh. 36).</p> <p>Mr. Brown explained during his deposition that a "possible" means that he was unable to reach a conclusion and that a "possible" does not mean the station <u>does not</u> pose a threat to deeper aquifers or wells. (O'Reilly Decl., Ex. 3, Brown Depo (Jan. 2, 2012) at 441:8-442:1;</p>

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	<p data-bbox="829 218 1377 289">Brown Depo (Jan. 3, 2012) 638:25-639:11 [emphasis added].)</p> <p data-bbox="829 327 1422 699">MTBE was detected in groundwater at 32,000 ppb when it was first sampled for in February 1996. (Wheatcraft Decl. ¶ 14.) This was the highest detection of MTBE at this site. (Id.) The MTBE sampling data for this site does not indicate what happened to the MTBE when it migrated off-site. (Id.) Transport modeling is the best method of determining the likely fate of MTBE found in groundwater on-site. (Id.)</p> <p data-bbox="829 737 1422 1184">Dr. Wheatcraft modeled the MTBE released from Unocal #5123. (Wheatcraft Decl. at ¶ 4.) Dr. Wheatcraft's modeling showed that the MTBE released from Unocal #5123 has migrated off-site and mixed with MTBE from other stations, and contributed to focus plumes. (Wheatcraft Decl. ¶ 5.) Wheatcraft's modeling showed the MTBE contributed by Unocal #5123 will converge with MTBE released by other stations to impact deeper aquifers and drinking water wells. (Wheatcraft Decl. ¶¶ 6-7.)</p> <p data-bbox="829 1222 1422 1444">The District's Chief Hydrogeologist, Roy Herndon, also concluded that this station posed a threat to drinking water resources and wells because the station is located within the "pumping depression" of a major supply well or wells. (Herndon Decl. ¶ 3.)</p> <p data-bbox="829 1482 1422 1736">Unocal #5123 is part of Plume No. 9, and City of Huntington Beach drinking water wells HB-1, HB-13, HB-4, and HB-7 are associated with this plume. (Bolin Decl. ¶ 4.) Dr. Wheatcraft's model predicts that all of these wells will be impacted by MTBE. (Wheatcraft Decl. ¶ 8.)</p>

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<p>15. Brown cannot state with any reasonable degree of certainty that an alleged release from Unocal #5123 poses a threat to the water supply in Orange County-either to the deep aquifers or to water supply wells:</p> <p>Once again, I cannot conclude that the releases more than likely than not pose a threat to deeper aquifers, only that they possibly pose such a threat.</p> <p>***</p> <p>Yes, I'm of the same opinion, that I could not conclude that it's more likely than not that the releases pose a threat to water supply wells, only that they pose a possible threat.</p> <p>Condron Decl. Exh. 3 (Brown Dep. at 1036:22-25; 1037:8-11).</p>	<p>15. Undisputed as to testimony, otherwise Disputed as set forth in Response to Paragraph 14.</p>
<p>16. Brown could not determine whether additional on-site remediation was needed at Unocal #5123:</p> <p>Q. And you think it is possible that additional on-site remediation of groundwater is required at this site, but you do not have an opinion that it's more likely than not that additional on-site remediation will be required at this site, correct?</p> <p>A. Based upon the information I have reviewed to date, I cannot conclude that it's more likely than not that additional on-site remediation of groundwater will be required.</p> <p>Condron Decl. Exh. 3 (Brown Dep. at 1034:2-13) (noting further that the need additional on-site remediation was only "possible").</p>	<p>16. Undisputed as to testimony, otherwise Disputed.</p> <p>The fact that no further on-site remediation is needed does not establish that the District has not been harmed by off-site MTBE from Beacon Bay, FV as set forth in Response to Paragraph 14 supra.</p> <p>Mr. Brown testified that on-site remediation at failed to prevent MTBE contamination from migrating off-site.</p> <p>(Condron Decl, Exh. 2 (Brown Exh. 36).)</p>

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<p>17. Brown could not conclude whether off-site remediation is necessary at Unocal #5123: “. . . I cannot conclude that its [sic] more likely than not that additional off-site remediation of groundwater will be required, only that it is possible . . .” Condron Decl. Exh. 3 (Brown Dep. at 1036:3-14; Brown Dep. at 1037:13-18 (“Q. And you have not concluded that it is more likely than not that additional remediation is necessary at this site? A. That is correct. Only that additional remediation may possibly be required.”)).</p>	<p>17. Undisputed as to testimony, otherwise Disputed as set forth in Response to Paragraphs 3-5, and 14 supra.</p> <p>Mr. Brown testified that on-site remediation at failed to prevent MTBE contamination from migrating off-site. Thus, Mr. Brown concluded that additional off-site assessment is required, including assessment of <u>deeper</u> groundwater. Mr. Brown testified that it is “possible” that off-site remediation is necessary as additional off-site assessment is required.</p> <p>(Condron Decl, Exh. 2 (Brown Exh. 36).)</p>
<p><b>Thrifty 368</b></p>	
<p>18. For Thrifty 368, Brown entered an “N” (not more likely than not) on both additional on-site remediation required, Condron Decl. Exh. 2 (Brown Exh. 36, Q19), and additional off-site remediation required, Condron Decl. Exh. 2 (Brown Exh. 36, Q20); and a “P” (possible but does not meet the threshold of more likely than not) on both posing a threat to deeper aquifers, Condron Decl. Exh. 2 (Brown Exh. 36, Q21), and posing a threat to water supply wells. Condron Decl. Exh. 2 (Brown Exh. 36, Q22).</p>	<p>18. Undisputed as to entries on Exhibit 36, otherwise disputed.</p> <p>Brown testified that</p> <ul style="list-style-type: none"> <li>• Sufficient MTBE has been released to impact groundwater off-site.</li> <li>• MTBE contamination has migrated off-site</li> <li>• MTBE contamination has commingled off-site with Unocal #5226</li> <li>• Remediation possibly failed to prevent MTBE contamination from migrating off-site</li> <li>• Additional off-site assessment of <u>deeper</u> groundwater is required</li> <li>• It is “possible” that remediation of off-site MTBE contamination will be required, and that this contamination poses a threat to deeper aquifers and wells.</li> </ul> <p>Condron Decl, Exh. 2 (Brown Exh. 36).</p> <p>Mr. Brown explicitly testified that he could not formulate an opinion as to possible threats to wells at Thrifty #368 because of inadequate investigations done by defendants:</p> <p>While releases of MTBE and TBA have occurred, the lateral extent of the contaminants both historically and currently is delineated, in my opinion;</p>

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	<p>however, there has been no investigation of the potential vertical migration of contaminants.</p> <p>Therefore, given the absence of that information, it is possible that the release at this facility may have migrated <u>vertically</u> and could, thus, pose a possible risk to water supply wells in the immediate vicinity. But I have not been able to conclude that it is more likely than not that the releases at this facility pose a threat to these water supply wells.</p> <p>(O'Reilly Decl. , Ex. 3 Brown Depo. (Jan. 2, 2012) at 451:3-452:22 [emphasis added].)</p> <p>Mr. Brown explained during his deposition that a "possible" means that he was unable to reach a conclusion and that a "possible" does not mean the station <u>does not</u> pose a threat to deeper aquifers or wells. (O'Reilly Decl., Ex. 3, Brown Depo (Jan. 2, 2012) at 441:8-442:1; Brown Depo (Jan. 3, 2012) 638:25-639:11 [emphasis added].)</p> <p>MTBE was detected in groundwater at Thrifty #368 at 410 ppb when it was first sampled for in February 1996. (Wheatcraft Decl. ¶ 13.) MTBE was subsequently detected in groundwater as high as 10,000 ppb. (Id.) Groundwater off-site has not been sampled for contamination. (Id.) Where no off-site sampling has occurred, transport modeling is the best method of determining the likely fate of MTBE found in groundwater on-site. (Id.)</p> <p>Dr. Wheatcraft modeled the MTBE released from Thrifty #368. (Wheatcraft Decl. at ¶ 4.) The modeling showed that the MTBE released from Thrifty #368 has migrated off-site and mixed with MTBE from other stations, and contributed to focus plumes. (Id. ¶ 5.) The modeling showed the MTBE contributed by Thrifty #368 will converge with MTBE released by other stations to impact deeper</p>



Defendants' Material Facts	Plaintiffs' Response
	<p>aquifers and drinking water wells. (Id. ¶¶ 6-7.)</p> <p>The District's Chief Hydrogeologist, Roy Herndon, also concluded that this station posed a threat to drinking water resources and wells because the station is located within the "pumping depression" of a major supply well or wells. (Herndon Decl. ¶ 3.)</p> <p>Thrifty #368 is part of Plume No. 9, and City of Huntington Beach drinking water wells HB-1, HB-13, HB-4, and HB-7 are associated with this plume. (Bolin Decl. ¶ 4.) Dr. Wheatcraft's model predicts that all of these wells will be impacted by MTBE. (Wheatcraft Decl. ¶ 8.)</p>
<p>19. Brown testified at his deposition that he gave a site a "P" even if he felt it "unlikely" that it posed a threat to drinking water:</p> <p>Q. Let's assume that you concluded that it was unlikely that [a site] was a threat to drinking water, you would still give [the site] a "P" correct?</p> <p>***</p> <p>THE WITNESS: It actually could get a "P" or an "N." We're talking generically across all of the potential sites.</p> <p>Condron Decl. Exh. 3 (Brown Dep. at 442:12-24). Brown could not conclude that it is more likely than not that Thrifty 368 presents a threat to wells in the vicinity of the station. Condron Decl. Exh. 3 (Brown Dep. at 473:2-476:3).</p>	<p>19. Disputed</p> <p>As explained above, Mr. Brown testified that:</p> <p>As I have discussed in response to earlier questions, if we believe that it was more likely than not the contamination posed a threat, then in response to question No. 22, the answer would be "Yes."</p> <p>If we believe that the contamination did not pose a threat, then the answer would be "No."</p> <p>If we could not determine that it was more likely than not that the contamination posed a threat, <u>but also not determine that it was more likely than not that it did not pose a threat, then it was left as a "Possible."</u></p> <p>(O'Reilly Decl., Ex. 3, Brown Depo (Jan. 3, 2012) 638:25-639:11 [emphasis added].) In the page just before the testimony quoted by defendants, Mr. Brown clearly explained that:</p> <p>In evaluating each of the specific service stations, I would obviously look at the historical and current contaminant</p>

Defendants' Material Facts	Plaintiffs' Response
	<p>concentration data, groundwater flow direction, the remediation activities that have occurred at the site. And based upon that and potential data gaps that exist, I would attempt to reach a conclusion that it is more likely than not that the contaminants do pose a threat to water supply wells. And that would be indicated by a "Y" in the column for that particular question . . . or it's more likely than not they don't. In which case that would be indicated by an "N," that I have reached that conclusion that it's more likely than not that they don't.</p> <p>However, for most of them I could not reach a conclusion either way, and it's simply possible that they do. And, conversely, possible that they don't.</p> <p>(O'Reilly Decl., Ex. 3, Brown Depo (Jan. 2, 2012) at 441:8-442:1.)</p>

**Plaintiffs' Undisputed Facts In Opposition to Defendants' Motion**

20. Dr. Stephen Wheatcraft was retained to prepare a contaminant transport model based on the geological characteristics of the aquifer in the Orange County basin. (Wheatcraft Decl. ¶¶ 1-3)

21. Dr. Wheatcraft utilized a separate MTBE source term for each focus plume station that was calculated utilizing actual MTBE groundwater data collected from monitoring wells and other sampling by defendants' consultants at each site. (Wheatcraft Decl. ¶ 4.) The MTBE source term thus represents the MTBE released to groundwater at each focus plume station. (Id.) The transport model prepared by Dr. Wheatcraft thus depicts the transport of MTBE released at each focus plume station through the aquifer to production wells within the District service area, although the model does not isolate each station. (Id.)

22. Dr. Wheatcraft's model shows that as MTBE migrates off-site from a station, that

MTBE mixes with MTBE from other nearby stations to form MTBE plumes. (Wheatcraft Decl. ¶ 5; see also O'Reilly Decl., Ex. 4, Wheatcraft Depo. (Jan 17, 2012) at 374:13-375:2.) The model thus shows that MTBE from each focus plume station has contributed to a focus plume. (Id.)

23. Dr. Wheatcraft's model shows that as the MTBE plumes migrate deeper into the aquifer, the contamination will converge in the subsurface. (Wheatcraft Decl. ¶¶ 6-7.)

24. Dr. Wheatcraft's model predicts that 108 district production wells will exceed 5 ppb MTBE after 10 years. (Wheatcraft Decl. ¶ 7.)

25. Dr. Wheatcraft's model predicts that a total of 155 district production wells will be contamination with MTBE above 5 parts per billion in the next 50 years. (Wheatcraft Decl. ¶ 7.)

26. MTBE was not sampled for at any of these stations until 1996. (Wheatcraft Decl. ¶¶ 12-15.) MTBE was detected in groundwater the first time it was sampled for at these stations. (Id.) No sampling of groundwater outside the station property was conducted at Beacon Bay, Fountain Valley, Unocal #5399, and Thrifty #368. (Id.) Where there is no off-site data or other data showing what happened to MTBE once it migrated off-site, transport modeling is the best method of determining the likely fate of MTBE released at these stations. (Id.)

27. Prior to 2003, MTBE had been detected in only eight water production wells. (Bolin Decl. ¶ 5.) By the time the District conducted a second vulnerability assessment in 2010, MTBE was detected for the first time in fifty-six public drinking water wells. (Bolin Decl., ¶ 6.)

28. "Each focus plume (with associated stations) is located within a pumping depression [of a major supply well or wells]. Based on the prevalent downward hydraulic gradient beneath each station, MTBE that has migrated off-site from each station will move downward into the principal aquifer and be carried to the pumping wells that created the pumping depressions." (Herndon Decl. (July 21, 2014) ¶ 3.)

29. The District, through its extensive study of the basin over decades, estimates that

the shallow aquifer holds approximately 5 million acre-feet of groundwater which can supply approximately sixteen years of groundwater pumping from the basin. (Herndon Decl. (July 21, 2014) at ¶¶ 2 & 4.) The shallow aquifer is thus a body of “percolating water” that is replenished from above and discharges to the principal aquifer below. (Id.) The shallow aquifer in the basin is extensive and complex. (Id. at 1-2. & 4)

30. Water budgets prepared by the District as part of their groundwater management plans thus show that up to 98% of the water in the basin, including the water in the shallow aquifer, exits to production wells. (Wheatcraft Decl. ¶ 9.)

31. Defense expert John Connor, admitted the State of California has designated the shallow aquifer in the District’s service area for “beneficial use” as a drinking water source. (O’Reilly Decl., Ex. 9, Connor Depo. (Jan. 27, 2012) at 41:9-43:23, 45:18-46:11.)

32. Defense expert John Wilson confirmed that MTBE contamination in drinking water wells comes from releases at gasoline stations, and that virtually all drinking water aquifers are vulnerable to contamination released to shallow aquifers. (O’Reilly Decl., Ex. 10, Wilson Depo. (May 18, 2012) at 38:12-17, 198:1-11 Fresno).

33. The shallow aquifer is itself used directly in some areas for drinking water supplies. Both Newport Beach and Huntington Beach, for example, have active drinking water wells that withdraw water from the “shallow” aquifer. (O’Reilly Decl., Ex. 11, Johnson Depo. (Aug. 24, 2010) at 120:15-121:11 [Huntington Beach]; Ex. 12, Murdoch Depo. (May 3, 2010) at 161:7-12 [Newport Beach].) Dr. Wheatcraft’s model shows that Newport Beach’s shallow well NB-TAMS is or will be impacted by MTBE. (Wheatcraft Decl. ¶ 7.) This well is associated with Plume No. 1 and the Unocal #5399 station. (Bolin Decl. ¶ 2.)

34. “The District has incurred substantial costs to conduct Cone Penetration Testing and groundwater sampling of stations associated with Bellwether Plume Nos. 1, 3, and 9, as well as

non-station specific costs . . .” (Bolin Decl. ¶ 7.)

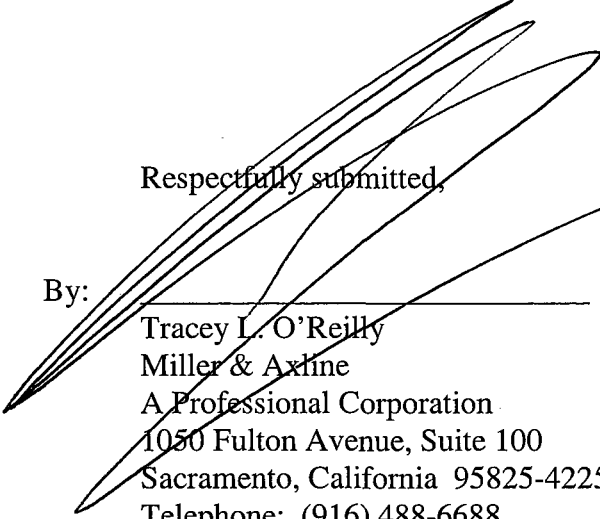
35. Dr. Fogg concluded that “significant MTBE mass [is present] beyond the monitoring well networks . . .” of the stations, and that the only way to prevent this MTBE from reaching public drinking water wells is to clean up the [MTBE] contamination before it gets to supply wells.” (O’Reilly Decl., Ex. 6, Fogg Depo. (Jan. 21, 2012) at 110:9-24.)

36. The District’s toxicology expert, Dr. Rudo, opined that “[b]ased on the information in scientific literature, MTBE is a genotoxic carcinogen and as such, has no safe level of exposure, especially in drinking water.” (O’Reilly Decl., Ex. 13, Expert Report of Kenneth Rudo (May 31, 2011) at Key Opinions, A, p. 3.)

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Respectfully submitted,

By:



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